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United States  
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Forest Service

Northeastern  
Research Station

Research Note NE-375



# Bulletin of Hardwood Market Statistics: 1989 - 2000

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## Abstract

Current and historical data on primary and secondary hardwood products, production, prices, international trade, and employment is presented.

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## Introduction

Data contained in this bulletin provide a general overview of recent trends in the hardwood market for use by hardwood-related industries, forest managers, the academic community, and the public. The statistics presented in this bulletin are not inclusive. Specific series were selected on the basis of their availability and completeness, and were derived from a variety of sources. Questions about data-collection procedures should be directed to the issuing agency or organization.

The reported import and export data for hardwood logs, lumber, veneer, and plywood are reproduced in their entirety as received from the U.S. Department of Commerce, Bureau of the Census.

Reporting errors have occurred in the past due to coding and computer program errors and changes in tariff systems. For information on

these errors, see Luppold (1995). Readers interested in export and import data are encouraged to reference additional sources when evaluating international trade statistics. For additional information on the international trade series presented here, please contact Bruce Hansen at 304-431-2739.

Readers interested in price data for specific subregions of the domestic hardwood market are encouraged to contact state forestry officials for information on local market conditions.

Your input is critical in helping us make this bulletin more useful. We welcome comments or suggestions on additional data series to include or different breakdowns of the data currently reported. Copies of this bulletin are free on request. Send your comments and requests to David M. Emanuel at the address below.

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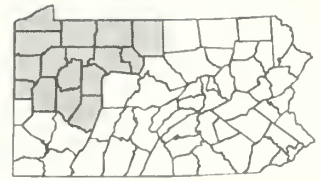
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## HARDWOOD STUMPAGE, LOG, AND LUMBER PRICES



**Table 1.--Average hardwood stumpage prices in northwestern Pennsylvania, 1989-2000**  
(Dollars/Mbf, International 1/4" scale)

Year	Red oak	White oak	Black cherry	Hard maple	Soft maple	Yellow-poplar
1989	302	157	331	78	58	50
1990	303	157	380	77	57	58
1991	282	162	416	85	64	63
1992	351	187	544	123	76	60
1993	479	235	748	194	114	93
1994	519	243	891	221	136	119
1995	499	232	813	190	123	128
1996	487	227	790	195	110	112
1997	514	227	978	297	163	131
1998	520	216	1,103	303	175	116
1999	504	217	1,347	313	182	133
2000	578	248	1,583	393	206	157

Source: Cooperative Extension Service, U.S. Department of Agriculture, The Pennsylvania State University.



**Table 2.--Average hardwood stumpage prices in Missouri, statewide, 1989-2000**  
(Dollars/Mbf, International 1/4" scale)

Year	Red oak	White oak	Ash	Hard maple	Soft maple	Mixed hardwoods
1989	NA	NA	NA	NA	NA	NA
1990	NA	NA	NA	NA	NA	NA
1991	95	102	39	NA	48	51
1992	99	109	96	NA	71	62
1993	116	113	140	75	67	76
1994	154	144	158	50	90	104
1995	175	142	129	NA	NA	94
1996	146	151	185	NA	NA	114
1997	165	146	NA	NA	NA	86
1998	190	175	NA	NA	NA	136
1999	171	220	130	NA	201	147
2000	194	185	NA	NA	NA	130

NA - Not available

Source: Missouri Department of Conservation, Forestry Division.

**Table 3.--Average hardwood stumpage prices in Maine,  
statewide, 1989-2000**  
(Dollars/Mbf, International 1/4" scale)



Year	Red Oak	Yellow Birch	White Ash	Hard maple	Soft Maple
1989	195	NA	NA	NA	41
1990	174	79	140	75	36
1991	207	82	123	88	33
1992	162	71	109	72	45
1993	176	73	121	91	54
1994	219	96	118	103	53
1995	241	99	126	115	56
1996	275	109	130	136	63
1997	254	113	126	159	77
1998	246	120	123	157	83
1999	224	119	129	157	85
2000	245	122	127	187	80

NA - Not available

Source: Management and Utilization Division, Maine Forest Service.

**Table 4.--Average hardwood stumpage prices in the northern, and  
delta and river regions of Mississippi, 1989-2000**  
(Dollars/Mbf, Doyle scale)



Year	North		Delta and River	
	Oak	Mixed hardwoods	Oak	Mixed hardwoods
1989	126	88	167	74
1990	131	101	192	99
1991	135	93	174	87
1992	154	101	197	84
1993	218	126	323	124
1994	214	138	306	128
1995	220	143	292	138
1996	225	147	317	128
1997	246	178	NA	139
1998	301	191	368	154
1999	296	183	369	159
2000	285	169	348	168

NA - Not available.

Source: Cooperative Extension Service, Mississippi State University, Mississippi State.

**Table 5.--Average hardwood stumpage prices in Ohio,  
statewide, 1989-2000**  
(Dollars/Mbf, Doyle scale)

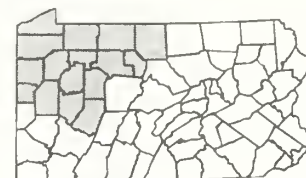


Year/season	White oak	Red oak	Cherry	Yellow-poplar
1989/spring	263	291	249	116
1989/fall	282	243	257	133
1990/spring	268	283	278	148
1990/fall	267	272	274	135
1991/spring	242	248	247	118
1991/fall	225	230	248	114
1992/spring	NA	NA	NA	NA
1992/fall	299	324	376	161
1993/spring	303	341	402	209
1993/fall	318	419	552	207
1994/spring	324	374	442	213
1994/fall	347	443	636	225
1995/spring	340	415	525	210
1995/fall	295	350	410	180
1996/spring	310	350	425	170
1996/fall	395	420	585	190
1997/spring	295	335	430	180
1997/fall	320	365	485	180
1998/spring	305	335	470	195
1998/fall	340	485	690	210
1999/spring	340	435	665	205
1999/fall	330	440	640	225
2000/spring	370	430	690	235
2000/fall	345	445	815	225

NA - Not available

Source: Ohio Agricultural Statistics Service, Columbus, OH.

**Table 6.--Average hardwood mill prices of grade 1 logs in  
northwestern Pennsylvania, 1989-2000**  
(Dollars/Mbf, International 1/4" scale)



Year	Red Oak	White Oak	Black Cherry	Hard maple	Soft maple	Yellow-poplar
1989	393	305	409	161	130	113
1990	369	260	376	166	131	116
1991	379	285	424	174	149	143
1992	455	321	527	228	176	158
1993	490	334	629	356	219	172
1994	555	483	710	352	232	189
1995	560	366	734	343	193	174
1996	504	370	654	343	205	195
1997	516	359	702	412	257	178
1998	597	320	966	458	313	198
1999	509	289	923	422	256	162
2000	560	318	1,152	543	286	207

Source: Cooperative Extension Service, U.S. Department of Agriculture, The Pennsylvania State University.





**Table 7.--Average hardwood mill prices of grade 1 logs in  
Missouri, statewide, 1989-2000**  
(Dollars/Mbf, International 1/4" scale)

Year	Red Oak	White Oak	Cherry	Ash	Soft maple	Black walnut
1989	NA	NA	NA	NA	NA	NA
1990	NA	NA	NA	NA	NA	NA
1991	267	274	317	207	182	531
1992	297	285	319	277	162	509
1993	NA	NA	NA	NA	NA	NA
1994	362	332	422	295	252	543
1995	362	315	383	284	225	609
1996	340	315	398	253	254	484
1997	445	424	519	376	398	611
1998	401	350	419	316	340	440
1999	422	394	634	366	435	471
2000	409	316	501	283	360	415

NA - Not available

Source: Missouri Department of Conservation, Forestry Division.



**Table 8.--Average hardwood mill prices of grade 1 logs in  
eastern Tennessee, 1989-2000**  
(Dollars/Mbf, Doyle scale)

Year	Red Oak	White Oak	Walnut	Ash	Hard maple	Yellow- poplar
1989	550	450	500	500	200	200
1990	575	481	425	500	200	238
1991	519	550	400	500	200	250
1992	588	563	400	500	200	250
1993	725	669	450	525	325	288
1994	775	700	500	563	375	338
1995	775	700	500	588	363	363
1996	713	638	500	550	350	325
1997	713	663	500	550	400	350
1998	732	669	500	550	419	362
1999	725	619	500	487	437	356
2000	875	675	500	550	550	447

Source: The Tennessee Division of Forestry, Utilization Section.



**Table 9.--Average hardwood mill prices in the northern and delta and river regions of Mississippi, 1989-2000**  
(Dollars/Mbf, Doyle scale)



Year	North		Delta and River	
	Oak	Mixed hardwoods	Oak	Mixed hardwoods
1989	202	174	242	151
1990	202	181	272	160
1991	NA	187	239	156
1992	247	198	281	169
1993	329	232	372	203
1994	314	224	392	188
1995	306	212	414	214
1996	306	212	414	214
1997	326	233	403	227
1998	380	262	430	239
1999	374	249	434	241
2000	364	259	429	255

NA – Not available

Source: Cooperative Extension Service, Mississippi State University.

**Table 10.--Average hardwood mill prices of red oak logs in Ohio, statewide, 1989-2000**  
(Dollars/Mbf, Doyle scale)



Year/season	Average all grades	Grade 1 16 inches	Grade 1	Grade 2	Grade 3
1989/spring	417	630	424	244	123
1989/fall	380	634	441	241	131
1990/spring	417	648	418	243	132
1990/fall	343	575	396	213	123
1991/spring	321	558	333	198	115
1991/fall	330	620	418	251	120
1992/spring	NA	NA	NA	NA	NA
1992/fall	428	725	496	273	146
1993/spring	459	753	494	267	139
1993/fall	468	788	524	296	154
1994/spring	460	731	461	284	150
1994/fall	472	884	546	305	157
1995/spring	450	800	510	290	125
1995/fall	475	780	470	280	130
1996/spring	425	690	460	255	135
1996/fall	520	855	540	295	140
1997/spring	470	795	515	305	145
1997/fall	440	745	430	245	145
1998/spring	470	740	420	275	165
1998/fall	500	800	515	315	160
1999/spring	460	805	540	275	145
1999/fall	510	855	615	305	155
2000/spring	465	860	455	285	130
2000/fall	540	960	580	335	160

NA – Not available

Source: Ohio Agricultural Statistics Service, Columbus, OH.

**Table 11.--Air-dried hardwood lumber prices, 1989-2000**  
(Dollars/Mbf)

Year	4/4 Appalachian red oak 1C	4/4 Poplar 1C	4/4 Cherry 1C	4/4 Northern hard maple 1C	4/4 Northern soft maple 1C
1989	535	289	778	395	315
1990	540	309	664	395	320
1991	530	284	620	400	335
1992	638	290	674	501	356
1993	789	384	960	725	475
1994*	800	425	1,040	731	561
1995	728	370	979	699	524
1996	705	349	845	698	493
1997	733	424	878	808	590
1998	775	405	1,043	860	610
1999	776	387	1,135	872	569
2000	780	458	1,125	983	633

Source: By permission from the Hardwood Market Report, Memphis, TN.

\*As of 1994 green lumber prices.

**Table 12.--Kiln-dried hardwood lumber prices, 1989-2000**  
(Dollars/Mbf)

Year	4/4 Appalachian red oak 1C	4/4 Poplar 1C	4/4 Cherry 1C	4/4 Northern hard maple 1C	4/4 Northern soft maple 1C
1989	751	356	943	813	NA
1990	775	408	771	545	NA
1991	744	362	695	569	NA
1992	876	432	803	694	NA
1993	1,043	579	1,457	987	NA
1994	1,043	579	1,457	987	775
1995	957	515	1,315	958	719
1996	996	499	1,068	984	686
1997	1,063	587	1,131	1,123	792
1998	1,061	541	1,394	1,136	798
1999	1,066	514	1,610	1,199	762
2000	1,064	600	1,637	1,435	851

NA – Not available

Source: Weekly Hardwood Review, Charlotte, NC.

## HARDWOOD PRODUCT PRICES, PRODUCTION, AND EMPLOYMENT

**Table 13.--Producer price indexes for selected wood industries, 1989-2000**  
(1982=100)

Year	Hardwood Lumber	Hardwood dimension	Wood kitchen cabinets	Wood household furniture	Upholstered wood household furniture	Wood office furniture	All commodities
1989	128.2	130.5	118.0	127.5	119.7	129.0	112.2
1990	131.0	138.9	121.7	131.7	121.9	133.0	116.3
1991	128.5	140.9	125.2	135.4	124.9	135.9	116.5
1992	140.7	145.5	129.2	138.7	125.9	138.3	117.2
1993	163.3	162.1	135.1	143.9	128.9	141.3	118.9
1994	168.3	170.2	140.7	150.2	134.3	145.6	120.4
1995	167.0	173.8	146.5	155.2	137.0	149.6	124.7
1996	163.9	173.1	150.4	158.3	140.0	153.5	127.7
1997	174.1	178.5	153.9	160.7	141.7	160.6	127.6
1998	178.7	180.9	156.9	164.0	143.5	164.2	124.4
1999	177.3	183.0	159.7	167.5	145.2	167.3	125.5
2000	185.9	188.8	164.2	170.4	147.6	171.1	132.7

Source: Producer Price Indexes, U.S. Department of Labor, Bureau of Labor Statistics.

**Table 14.--Value of domestic wood furniture shipments and wood furniture imports, 1989-2000**  
(Millions of dollars)

Year	Value of <sup>1</sup> domestic wood furniture shipments (actual \$)	Value of <sup>2</sup> domestic wood furniture shipments (1982 \$)	Value of <sup>3</sup> wood furniture imports (actual \$, c.i.f.)	Value of wood <sup>2</sup> furniture imports (1982 \$, c.i.f.)	Ratio of <sup>4</sup> imports to domestic production
1989	8,461.0	6,636	2,565	2,012	.30
1990	8,303.0	6,304	2,854	2,167	.34
1991	7,980.0	5,894	2,713	2,004	.34
1992	8,730.0	6,294	2,884	2,079	.33
1993	9,267.2	6,440	3,381	2,350	.36
1994	9,921.2	6,605	4,050	2,696	.41
1995	10,241.5	6,599	4,451	2,868	.43
1996	10,517.4	6,644	4,970	3,140	.47
1997	11,318.8	7,043	5,766	3,588	.51
1998	12,372.7	7,544	6,870	4,189	.56
1999	12,951.0	7,732	8,550	5,104	.66
2000	NA	NA	NA	NA	NA

<sup>1</sup> Source: U.S. Department of Commerce.

<sup>2</sup> Deflated by wood household furniture price index listed in Table 13.

<sup>3</sup> Source: U.S. Department of Commerce, Bureau of the Census.

<sup>4</sup> Developed from columns 1 and 3.

NA – Not available

**Table 15.--Production of oak strip flooring,  
1989-2000**

Year	Oak strip flooring (M feet)
1989	206,401
1990	205,187
1991	199,734
1992	222,573
1993	265,858
1994	307,689
1995	330,212
1996	367,465
1997	416,618
1998	448,971
1999	536,073
2000	562,885

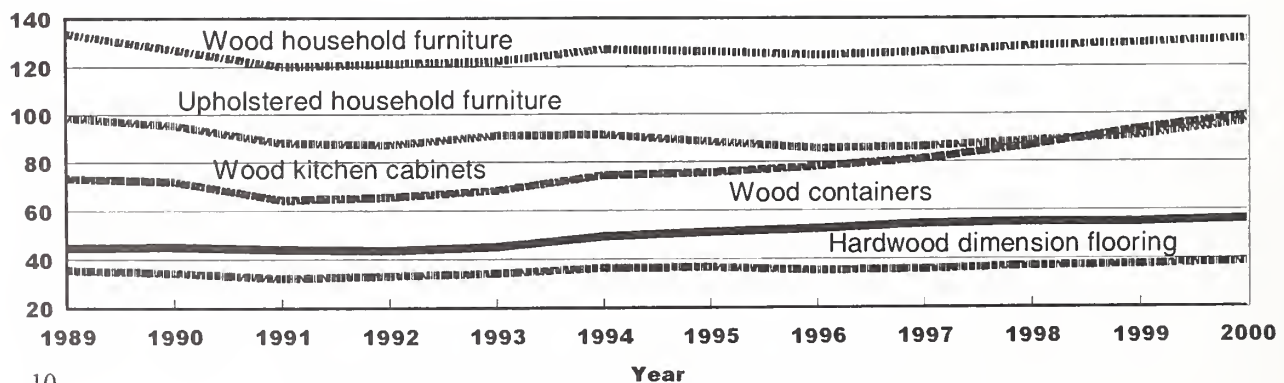
Source: National Oak Flooring Manufacturers Association statistics.

**Table 16.--Employment in selected wood-using industries, 1989-2000**  
(Thousands of employees)

Year	Wood containers (SIC 244)	Upholstered household furniture (SIC 2512)	Wood household furniture (SIC 2511)	Wood kitchen cabinets (SIC 2434)	Hardwood dimension and flooring (SIC 2426)
1989	44.7	99.0	134.0	73.6	35.8
1990	45.1	95.6	127.3	72.3	34.8
1991	44.0	88.2	120.2	64.6	32.6
1992	43.5	87.5	121.2	65.7	33.3
1993	45.2	91.3	122.4	68.6	34.5
1994	49.3	91.6	127.3	74.7	36.7
1995	51.2	88.8	126.3	76.0	36.9
1996	52.4	85.9	124.8	78.4	35.5
1997	54.5	86.6	126.1	81.4	36.1
1998	55.2	88.9	128.7	87.0	37.3
1999	55.0	91.0	129.9	93.8	37.9
2000	56.1	96.9	131.7	99.6	39.0

Source: U.S. Department of Labor.

Thousands of Employees



Employment in selected wood-using industries, 1989-2000.

# INTERNATIONAL HARDWOOD PRODUCT TRADE

Table 17.--International exchange rate, foreign currency per U.S. dollar, 1989-2000

Year	Belgium (franc)	Brazil (real)	Canada (dollar)	China (yuan)	France (franc)	Germany (mark)	Hong Kong (H.K. \$)	Italy (lira)
1989	39.375	NA	1.1841	3.7690	6.3753	1.8792	7.8009	1,909.3
1990	33.413	NA	1.1670	4.7955	5.4449	1.6159	7.7901	1,198.1
1991	34.146	NA	1.1460	5.3348	5.6388	1.6585	7.7711	1,239.6
1992	32.160	NA	1.2088	5.5266	5.2956	1.5624	7.7404	1,233.2
1993	34.569	NA	1.2902	5.7767	5.6644	1.6537	7.7357	1,571.9
1994	33.434	NA	1.3659	8.6401	5.5467	1.6219	7.7290	1,611.7
1995	29.493	0.9174	1.3727	8.3709	4.9889	1.4331	7.7357	1,628.9
1996	30.968	1.0052	1.3637	8.3387	5.1158	1.5048	7.7345	1,542.6
1997	35.789	1.0779	1.3849	8.3193	5.8361	1.7339	7.7430	1,703.0
1998	36.301	1.1604	1.4836	8.3006	5.8979	1.7593	7.7466	1,736.4
1999	37.867	1.8192	1.4858	8.2781	6.1574	1.8359	7.7593	1,817.6
2000	43.808	1.8310	1.4855	8.2784	7.1236	2.1240	7.7924	2,102.8

Year	Japan (yen)	Malaysia (ringgit)	Mexico (peso)	Singapore (S.dollar)	South Africa (rand)	South Korea (won)	Spain (pesetas)	U.K. (pound )
1989	138.00	2.7079	NA	1.9508	2.6215	674.17	118.34	0.611
1990	144.82	2.7048	NA	1.8128	2.5878	710.51	101.95	0.560
1991	134.51	2.7496	NA	1.7276	2.7613	736.61	103.87	0.565
1992	126.75	2.5467	NA	1.6295	2.8535	784.46	102.47	0.567
1993	111.23	2.5741	NA	1.6159	3.2694	805.62	127.31	0.666
1994	102.19	2.6244	3.38	1.5275	3.5517	806.92	133.89	0.653
1995	94.11	2.5080	6.44	1.4176	3.6276	772.90	124.68	0.634
1996	108.81	2.5158	7.60	1.4099	4.3004	805.16	126.68	0.641
1997	121.09	2.8178	7.92	1.4857	4.6081	953.15	146.45	0.611
1998	130.82	3.9248	9.15	1.6721	5.5315	1,404.20	149.37	0.604
1999	113.72	3.8000	9.56	1.6947	6.1175	1,189.83	156.18	0.618
2000	107.82	3.8000	9.46	1.7249	6.9470	1,131.38	180.69	0.661

NA – Not available

Source: Federal Reserve Bank of St. Louis and Federal Reserve Board of Governors.



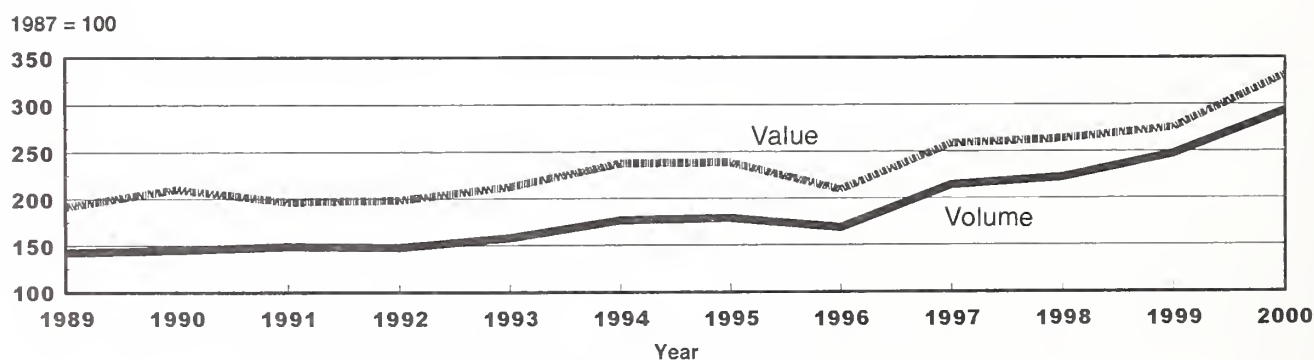
**Table 18--Volume and value of U.S. hardwood log exports, by region, 1989-2000**  
(Cubic meters and thousands of dollars, f.a.s.)

Year	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1989	113,186	18,124	31,970	8,651	386,120	93,087
1990	325,584	51,781	13,915	4,118	292,686	91,063
1991	416,893	53,930	17,142	4,201	230,866	78,635
1992	522,481	62,713	16,405	5,727	193,992	82,005
1993	616,313	73,627	11,884	5,082	160,865	72,603
1994	710,078	89,685	18,546	6,686	209,276	88,937
1995	769,115	98,818	9,924	4,249	175,673	77,016
1996	731,598	86,852	10,897	4,022	139,267	57,415
1997	973,348	119,098	19,108	7,803	181,380	74,850
1998	1,082,888	136,527	17,286	7,587	198,647	87,903
1999	1,236,647	146,884	21,907	8,027	190,690	86,617
2000	1,414,829	173,648	11,922	4,385	272,605	109,201

Year	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1989	409,682	98,955	24,231	86,155	965,189	227,433
1990	335,104	96,965	14,222	61,900	981,511	250,116
1991*	335,091	94,533	5,245	16,888	1,005,237	232,986
1992	240,269	83,666	30,489	17,455	1,003,636	235,858
1993	278,393	99,937	3,132	10,066	1,070,587	252,253
1994	250,545	94,285	5,573	2,225	1,194,018	281,819
1995	254,395	101,376	2,127	701	1,211,234	282,159
1996	263,746	99,784	759	301	1,146,627	248,373
1997	271,016	103,944	2,741	565	1,447,593	306,260
1998	198,787	79,644	1,473	442	1,499,081	312,104
1999	221,235	83,264	2,788	1,545	1,673,267	326,338
2000	274,770	103,210	4,338	2,482	1,978,464	392,927

Source: U.S. Department of Commerce, Bureau of the Census.

\*1991 volume adjusted for Asia because of known errors. See Luppold, 1995.



Volume and value index of all U.S. hardwood log exports, 1989 - 2000.



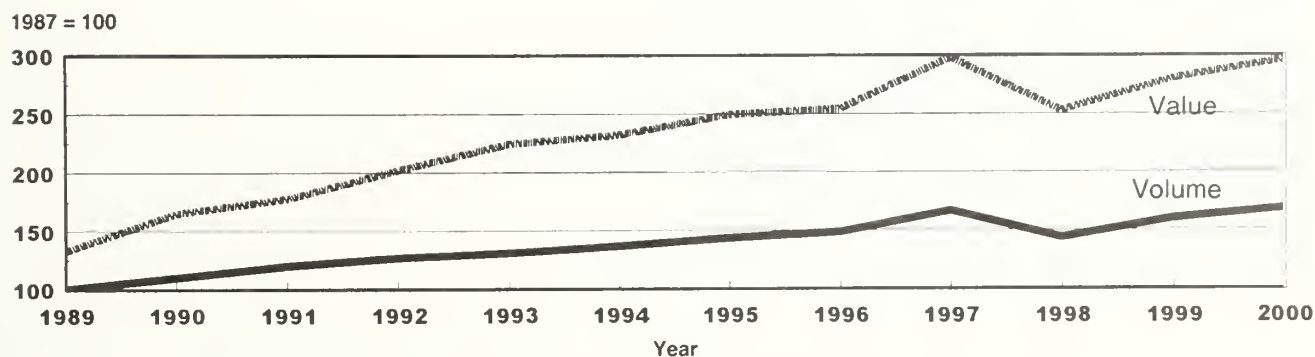
**Table 19.--Volume and value of U.S. hardwood lumber exports, by region, 1989-2000**  
(Cubic meters and thousands of dollars, f.a.s.)

Year	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1989*	431,356	113,452	116,101	28,409	522,108	253,812
1990	547,941	198,767	89,427	26,960	653,309	313,550
1991	465,152	166,462	106,483	33,082	771,827	368,731
1992	602,457	195,976	129,753	43,497	801,865	431,696
1993	702,640	236,565	124,624	49,493	726,776	429,784
1994	762,734	253,617	141,505	55,540	745,828	436,218
1995	792,871	257,536	162,041	60,576	738,626	458,409
1996	826,421	261,974	189,335	72,827	729,924	460,988
1997	902,051	331,544	178,757	71,538	918,843	566,264
1998	811,902	301,438	207,545	85,194	836,528	520,776
1999	950,589	347,841	237,028	100,651	801,002	507,768
2000	1,025,912	396,920	252,449	95,557	837,548	528,130

Year	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1989*	600,025	221,410	46,814	17,071	1,716,404	634,156
1990	540,412	222,899	60,584	27,996	1,891,673	790,167
1991	651,148	257,188	56,856	24,500	2,051,466	849,963
1992	583,845	266,199	51,019	26,022	2,168,939	963,388
1993	641,792	322,400	51,095	28,518	2,246,927	1,066,755
1994	640,686	333,592	51,023	28,694	2,341,776	1,107,659
1995	715,575	380,197	57,127	30,089	2,466,240	1,186,811
1996	736,854	377,847	65,541	35,119	2,548,075	1,208,754
1997	788,020	408,338	75,266	43,287	2,862,937	1,420,971
1998	555,887	267,596	54,276	31,876	2,466,138	1,206,880
1999	703,086	347,333	50,855	30,837	2,742,560	1,334,432
2000	725,765	356,099	57,109	31,829	2,898,783	1,408,535

Source: U.S. Department of Commerce, Bureau of the Census.

\* 1989 volume adjusted for Europe and Asia because of known errors. See Luppold, 1995.



Volume and value index of all U.S. hardwood lumber exports, 1989 - 2000.

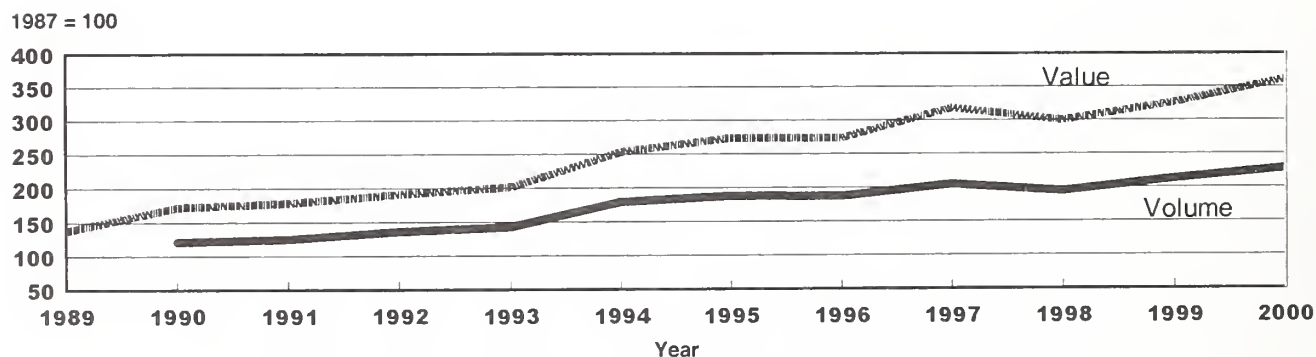
**Table 20.--Volume and value of U.S. hardwood veneer exports, by region, 1989-2000**  
(Million square meters and thousands of dollars, f.a.s.)

Year	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1989	NA	15,141	NA	2,645	NA	95,711
1990	20.0	25,096	2.5	3,319	103.4	125,366
1991	15.5	19,751	3.5	4,915	107.6	128,815
1992	20.8	23,626	4.4	6,410	116.2	140,176
1993	25.0	28,719	9.0	12,312	106.7	129,095
1994	31.5	41,836	9.2	11,674	128.8	160,231
1995	33.6	42,405	9.1	12,053	141.4	182,733
1996	40.3	55,014	7.9	10,722	140.5	175,426
1997	52.0	73,034	12.1	14,456	143.6	190,785
1998	58.8	82,705	9.0	12,357	137.7	184,799
1999	74.7	102,203	11.0	14,893	132.1	177,812
2000	85.1	119,474	11.4	14,960	13.2	185,672

Year	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1989	NA	37,363	NA	4,879	NA	155,742
1990	27.0	35,842	3.3	4,074	156.2	193,698
1991	28.9	41,458	4.7	5,319	160.3	200,262
1992	27.9	38,264	5.7	6,974	175.1	215,449
1993	37.3	48,175	5.8	7,296	183.7	225,595
1994	53.0	61,390	7.8	9,289	230.2	284,423
1995	45.7	56,694	11.3	13,864	241.2	307,749
1996	41.7	54,490	9.8	12,353	240.2	308,008
1997	45.4	66,564	10.3	12,580	263.5	357,418
1998	36.1	46,955	8.4	10,475	249.9	337,291
1999	46.0	59,228	10.6	12,179	274.4	366,313
2000	52.7	69,467	13.1	15,890	293.8	405,462

NA – Not available

Source: U.S. Department of Commerce, Bureau of the Census.



Volume and value index of all U.S. hardwood veneer exports, 1989 - 2000.

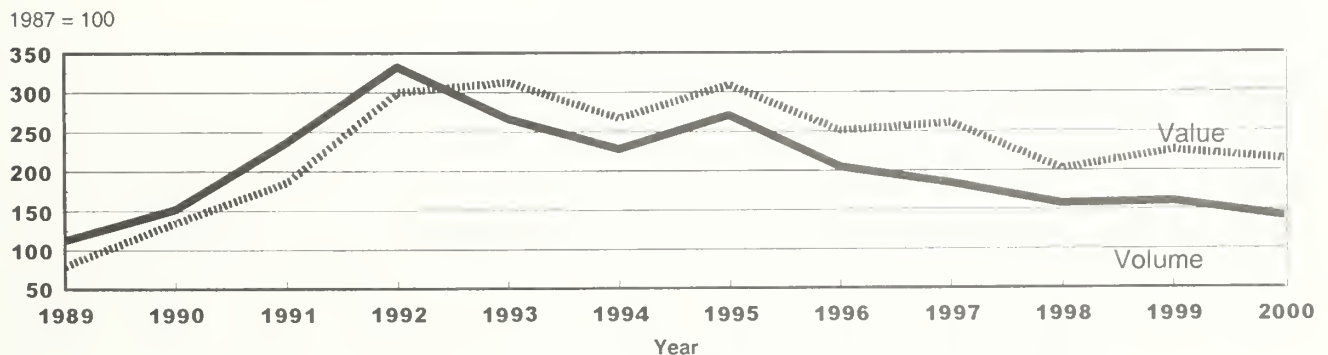
**Table 21.--Volume and value of U.S. hardwood plywood exports, by region, 1989-2000**  
(Cubic meters and thousands of dollars, f.a.s.)

Year	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1989	24,226	4,644	23,749	4,844	7,888	1,146
1990	31,623	10,552	42,033	7,533	2,947	671
1991	51,896	15,200	57,296	9,790	4,099	923
1992	64,046	19,245	73,338	14,301	30,299	8,212
1993	55,747	19,041	31,302	8,172	21,583	8,678
1994	57,720	17,082	38,323	10,780	2,590	2,152
1995	80,503	23,657	28,036	8,623	5,563	3,901
1996	68,628	23,946	26,678	8,478	1,154	611
1997	59,500	23,930	23,617	8,298	5,513	1,505
1998	56,942	19,427	19,654	7,257	911	263
1999	50,036	20,084	30,304	11,161	1,279	337
2000	46,942	22,235	19,489	7,154	703	249

Year	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1989	2,587	689	1,254	231	59,704	11,553
1990	2,987	716	710	262	80,300	19,732
1991	10,571	962	917	222	124,779	27,097
1992	6,964	1,596	1,102	383	175,749	43,737
1993	31,685	9,369	560	363	140,877	45,621
1994	19,884	8,471	1,415	408	119,932	38,896
1995	28,464	8,693	657	256	143,223	45,133
1996	9,418	3,078	2,389	442	108,267	36,558
1997	7,732	4,028	1,188	288	97,550	38,049
1998	4,699	2,444	880	224	83,086	29,616
1999	2,591	1,192	428	184	84,638	32,960
2000	6,581	1,461	282	112	73,997	31,211

Source: U.S. Department of Commerce, Bureau of the Census.



Volume and value index of all U.S. hardwood plywood exports, 1989 - 2000.

**Table 22.--Volume and value of U.S. hardwood log imports, by region, 1989-2000**  
(Cubic meters and thousands of dollars, c.i.f.)

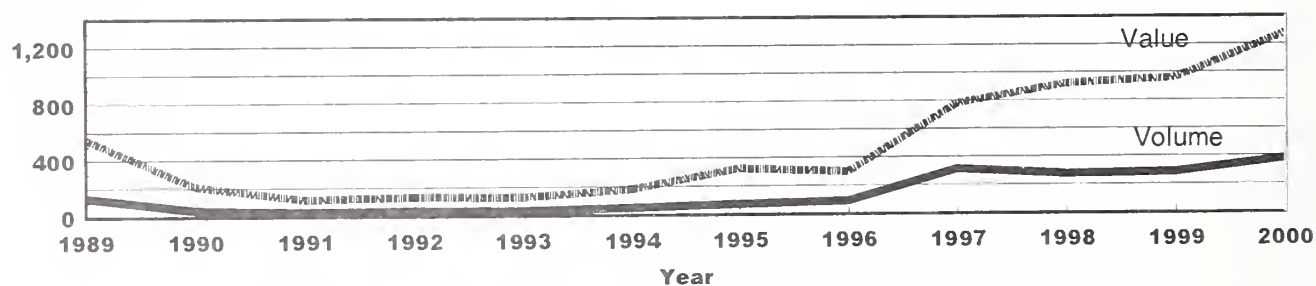
Year	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1989	36,293	4,880	8,648	2,805	7,403	1,994
1990	15,138	1,971	756	384	4,332	1,507
1991	10,275	1,439	1,550	228	1,103	419
1992	16,069	2,242	238	105	1,968	787
1993	14,604	2,143	690	476	1,409	540
1994	26,081	3,947	1,236	505	1,661	567
1995	40,913	7,218	346	89	957	413
1996	56,333	10,153	591	158	0	0
1997	187,856	24,710	3,751	1,235	855	698
1998	163,840	29,594	5,901	1,368	816	253
1999	167,478	30,785	7,313	1,372	1,459	567
2000	227,176	41,469	6,322	1,679	1,030	660

Year	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1989	28,318	9,958	2,519	583	83,181	20,220
1990	7,913	3,466	1,646	547	27,785	7,875
1991	3,681	1,940	1,006	486	17,615	4,515
1992	1,987	1,237	1,131	599	21,393	4,970
1993	2,012	1,106	908	573	19,623	4,837
1994	2,377	1,309	588	487	31,943	6,813
1995	1,818	3,719	1,003	572	45,037	12,014
1996	283	147	1,607	627	58,814	11,084
1997	635	398	3,815	1,487	196,912	28,529
1998	734	569	2,444	1,857	173,735	33,642
1999	922	934	3,887	1,544	181,059	35,200
2000	1,332	828	4,344	2,064	240,204	46,701

Source: U.S. Department of Commerce, Bureau of the Census.

1987 = 100



Volume and value index of all U.S. hardwood log imports, 1989 - 2000.

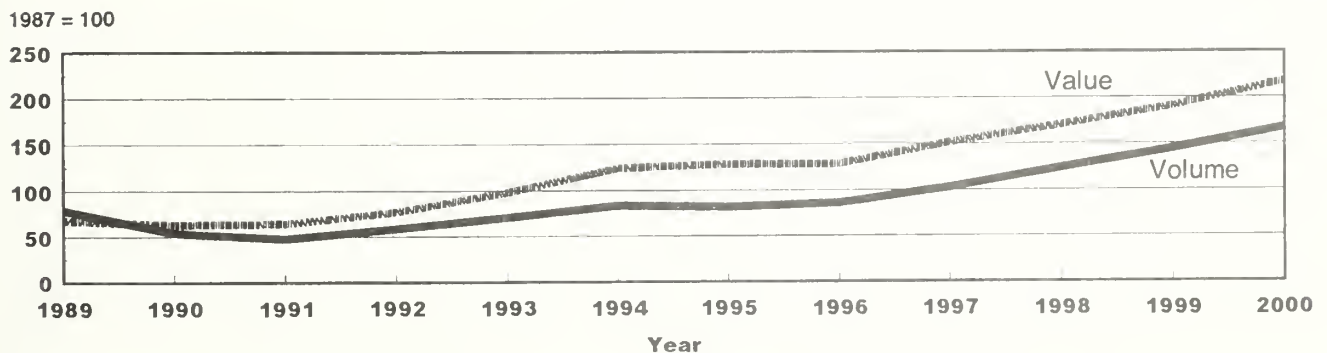
**Table 23.--Volume and value of U.S. hardwood lumber imports, by region, 1989-2000**  
(Cubic meters and thousands of dollars, c.i.f.)

Year	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1989	286,727	47,007	262,054	73,115	74,768	3,317
1990	269,538	48,395	203,064	70,072	7,086	4,140
1991	252,512	45,763	182,360	81,589	4,922	2,841
1992	361,466	75,071	181,783	79,136	6,125	3,658
1993	481,186	110,490	185,746	86,367	5,583	3,924
1994	549,342	130,835	220,647	111,143	12,859	5,820
1995	496,266	117,122	249,044	133,422	11,074	7,936
1996	547,729	132,162	220,355	119,595	26,683	11,927
1997	710,436	176,154	214,958	114,149	28,971	16,309
1998	925,435	206,859	251,840	138,606	33,125	19,406
1999	1,102,642	245,947	257,073	143,630	30,136	18,154
2000	1,224,411	267,927	294,417	155,872	53,873	30,669

Year	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1989	110,383	49,955	103,942	2,213	837,874	175,608
1990	78,705	40,134	10,412	2,091	568,805	164,835
1991	64,381	32,583	6,403	3,253	510,578	166,030
1992	74,982	40,929	3,872	2,051	628,228	200,843
1993	74,578	48,549	7,372	3,790	754,465	253,117
1994	96,014	65,670	12,587	6,177	891,449	319,651
1995	91,396	67,649	15,263	4,202	863,043	330,329
1996	100,228	62,501	15,010	4,784	910,005	330,968
1997	111,367	79,676	18,675	4,075	1,084,407	390,363
1998	92,937	67,610	10,520	4,469	1,313,857	436,949
1999	111,601	76,436	19,545	5,916	1,520,997	490,083
2000	152,702	93,748	35,392	9,425	1,760,795	557,641

Source: U.S. Department of Commerce, Bureau of the Census.



Volume and value index of all U.S. hardwood lumber imports, 1989 - 2000.



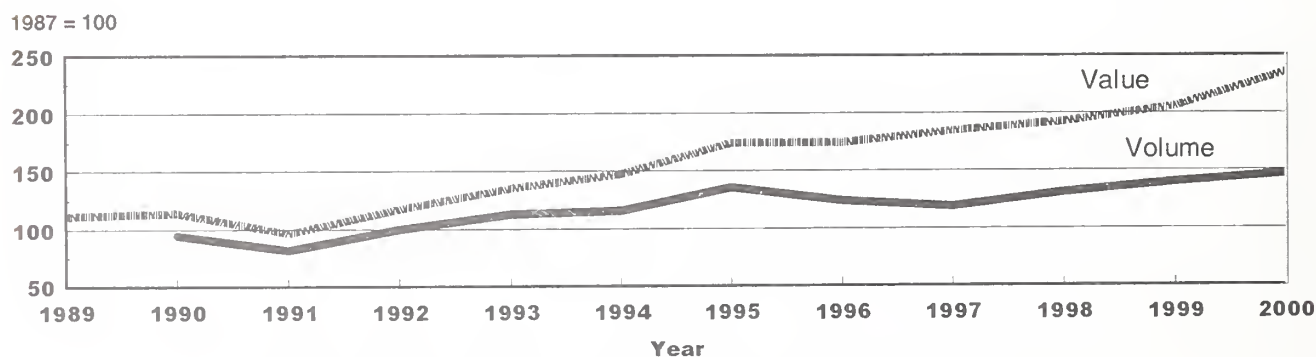
**Table 24.--Volume and value of U.S. hardwood veneer imports, by region, 1989-2000**  
(Million square meters and thousands of dollars, c.i.f.)

Year	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1989	NA	86,845	NA	28,916	NA	4,365
1990	84.0	92,166	29.8	30,640	3.0	3,868
1991	78.2	81,276	22.5	24,815	2.5	4,844
1992	92.7	100,379	33.9	35,944	2.1	2,322
1993	107.6	111,860	42.1	48,057	3.6	4,677
1994	113.4	129,789	38.5	40,882	3.4	6,346
1995	110.2	143,695	53.5	51,534	10.6	13,999
1996	110.6	153,306	47.3	49,948	15.9	17,516
1997	115.9	163,271	34.8	45,904	12.7	15,369
1998	122.3	163,452	32.7	43,149	20.3	22,770
1999	133.8	183,218	31.7	37,669	26.2	27,940
2000	139.7	209,551	28.7	36,165	25.0	26,808

Year	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1989	NA	25,669	NA	23,617	NA	169,414
1990	23.3	23,406	8.7	23,175	148.7	173,255
1991	18.4	16,367	7.0	19,809	128.6	147,110
1992	19.4	17,438	7.5	23,145	155.6	179,226
1993	14.7	16,509	8.9	25,013	176.9	206,117
1994	11.0	13,797	14.1	33,304	180.8	224,117
1995	25.0	25,354	12.8	30,822	212.1	265,399
1996	10.3	12,662	10.4	31,544	194.5	264,975
1997	8.9	12,338	13.0	43,399	185.3	280,281
1998	13.8	16,140	16.4	46,579	205.4	292,090
1999	11.0	14,543	15.6	48,631	218.5	312,000
2000	10.7	16,753	26.2	67,130	230.4	356,407

NA – Not available

Source: U.S. Department of Commerce, Bureau of the Census.



Volume and value index of all U.S. hardwood veneer imports, 1989 - 2000.



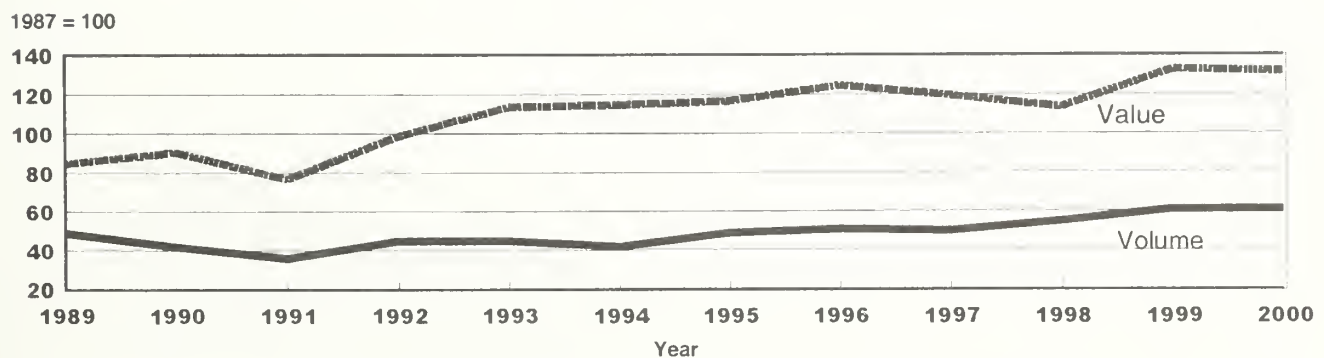
**Table 25.--Volume and value of U.S. hardwood plywood imports, by region, 1989-2000**  
(Cubic meters and thousands of dollars, c.i.f.)

Year	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1989	105,125	35,349	92,316	29,933	106	50
1990	88,656	35,112	124,623	41,642	0	0
1991	88,755	38,121	121,000	43,468	14	9
1992	113,359	48,758	198,026	67,597	34	12
1993	123,456	60,060	298,495	115,885	258	141
1994	156,969	71,209	366,644	140,830	405	196
1995	179,327	82,083	361,577	147,184	0	0
1996	214,509	93,196	347,185	145,442	1,689	627
1997	253,286	116,947	350,048	140,644	152	114
1998	272,249	134,029	185,572	72,300	881	534
1999	297,190	157,470	275,804	97,048	1,619	659
2000	340,356	171,449	337,255	120,789	12,487	4,308

Year	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1989	1,393,283	467,064	79,548	19,343	1,670,378	551,740
1990	1,154,248	484,731	54,305	23,606	1,421,832	585,092
1991	962,719	397,398	54,824	16,150	1,227,312	495,148
1992	1,174,221	501,774	38,845	19,231	1,524,485	637,374
1993	1,056,320	534,010	55,409	28,393	1,533,938	738,487
1994	833,992	493,756	89,245	39,568	1,447,255	745,561
1995	992,080	473,331	131,124	53,535	1,664,108	756,133
1996	1,001,738	501,683	179,202	64,933	1,744,323	805,879
1997	923,270	444,287	180,367	70,629	1,707,123	772,622
1998	1,217,893	441,262	203,580	91,060	1,880,175	739,185
1999	1,211,676	493,765	284,589	111,682	2,070,878	860,625
2000	1,046,752	424,576	344,230	131,551	2,081,080	852,673

Source: U.S. Department of Commerce, Bureau of the Census.



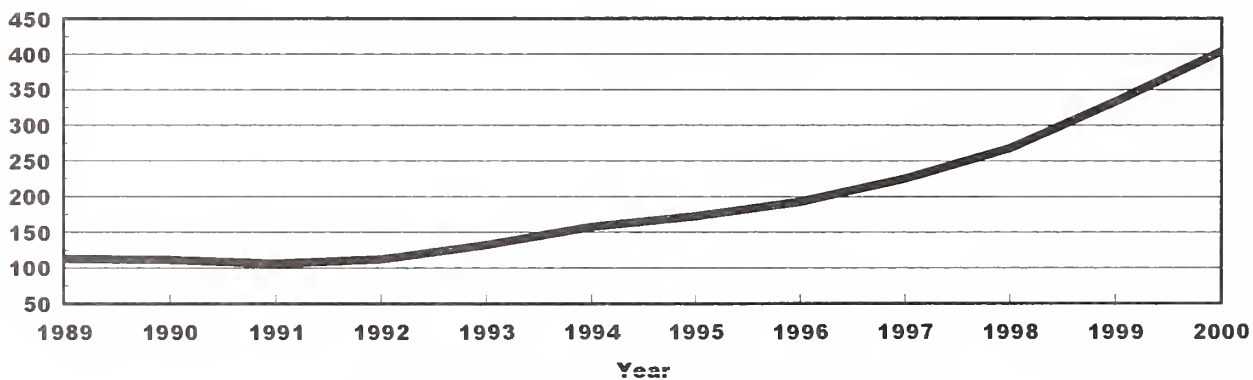
Volume and value index of all U.S. hardwood plywood imports, 1989 - 2000.

**Table 26.--Value of U.S. wood furniture imports, by region, 1989-2000**  
(Thousands of dollars, c.i.f.)

Year	Canada	Caribbean, South, and Central America	Europe	Asia, Middle east, and Pacific	All other	Total
1989	364,680	210,610	1,001,587	1,320,670	4,587	2,902,131
1990	358,934	244,751	1,031,711	1,213,362	5,334	2,854,098
1991	346,139	256,841	833,211	1,271,590	4,811	2,712,594
1992	412,880	269,361	784,314	1,412,052	5,740	2,884,347
1993	563,326	301,397	755,104	1,751,680	9,488	3,380,993
1994	753,590	347,697	941,112	1,993,394	14,546	4,050,339
1995	899,350	411,731	1,042,945	2,080,382	16,600	4,451,008
1996	1,159,725	507,665	1,074,415	2,199,756	28,093	4,969,654
1997	1,460,377	629,273	1,190,400	2,458,208	27,331	5,765,589
1998	1,785,320	701,456	1,393,502	2,955,214	34,429	6,869,921
1999	2,173,010	800,299	1,636,374	3,908,433	32,366	8,550,482
2000	2,556,924	914,657	2,038,684	4,819,201	40,507	10,369,973

Source: U.S. Department of Commerce, Bureau of the Census.

1987 = 100



Value index of U.S. furniture imports, 1989 - 2000.

Millions of dollars



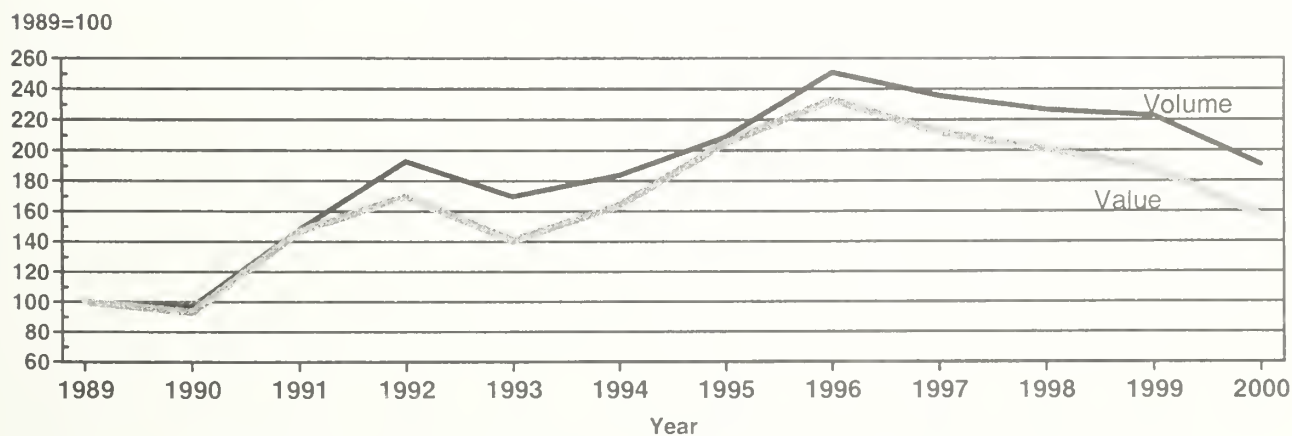
Value of U.S. furniture imports, by region, 1989 - 2000.

**Table 27.--Volume and value of U.S. exports of nonconiferous chips, by region, 1989-2000**  
(Tons and thousands of dollars, f.a.s.)

Year	Western Europe		Canada		Japan		Mexico	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1989	1,273	64	5,346	268	1,406,411	134,099	84,564	4,374
1990	1,035	52	42,495	1,974	1,336,612	125,500	37,451	1,764
1991	334	20	107,632	4,225	2,178,574	214,233	0	0
1992	1,519	110	148,519	6,256	2,565,423	234,189	18,120	1,224
1993	23,023	1,943	170,143	6,676	2,454,629	199,244	87	6
1994	728	923	248,845	9,562	2,649,198	230,564	1,442	60
1995	2,223	1,218	284,126	12,007	3,031,485	299,663	18	20
1996	312	106	210,320	8,641	3,845,584	344,898	35	18
1997	1,753	174	294,811	10,520	3,687,410	320,192	107	62
1998	5,059	564	268,536	8,831	3,566,618	311,816	0	0
1999	7,895	909	250,204	8,197	3,320,756	278,124	253	94
2000	25,042	10,642	294,118	9,549	2,734,753	217,700	15,001	934

Year	Taiwan		Korea		All other		Total	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1989	133,277	14,502	81,636	8,522	699	35	1,713,206	161,865
1990	179,993	14,624	69,856	6,347	1,097	47	1,668,539	150,309
1991	190,600	14,141	63,756	4,621	1,738	105	2,542,634	237,345
1992	326,060	13,221	235,992	20,237	2,984	333	3,298,617	275,568
1993	22	26	254,808	18,867	4,432	2,129	2,907,144	228,892
1994	0	0	248,635	23,763	1,824	177	3,150,672	265,050
1995	0	0	256,462	17,394	5,084	1,305	3,579,398	331,607
1996	61,268	6,127	176,047	17,599	8,045	331	4,301,611	377,718
1997	0	0	58,807	11,207	8,555	947	4,051,443	343,103
1998	0	0	33,390	3,477	10,702	1,502	3,884,305	326,190
1999	0	0	221,253	15,317	14,310	1,588	3,814,671	304,231
2000	1,012	612	195,435	11,336	10,355	2,802	3,275,716	253,575

Source: U.S. Department of Commerce, Bureau of the Census.



Volume and value index of all U.S. exports of nonconiferous chips, 1989 - 2000.

## Definition of Terms

c.i.f. (Cost, Insurance, Freight) - The term is used for shipment to designated overseas port of import. The seller quotes a price for the goods, including insurance, all transportation, and miscellaneous charges to the point of debarkation from vessel or aircraft.

f.a.s. (Free Alongside a Ship at designated U.S. port of export) - The seller quotes a price that includes charges for delivery of the goods alongside a vessel at the port. The seller handles the cost of unloading and wharfage. Loading, ocean transportation, and insurance are the buyer's responsibility.

## Useful Conversion Factors

1 Mbf (lumber) = 2.36 cubic meters

1 Mbf\* (logs - FAO) = 4.53 cubic meters

1 Mbf\*\* (logs - Doyle scale) = 4.59 cubic meters

1 Mbf\*\* (logs - International 1/4" rule) = 3.48 cubic meters

1 Mbf\*\* (logs - Scribner) = 3.90 cubic meters

1 cubic meter = 35.32 cubic feet

1 ton = 2000 lbs.

1 metric ton = 2204.623 lbs.

\* Factor used by the Food and Agricultural Organization of the United Nations.

\*\* Approximation based on 16-foot log with a 15-inch diameter at the top end inside bark. Actual conversion will depend on the distribution of logs under consideration.

## Literature Cited

Luppold, William G. 1995. Causes and remedies for errors in international forest products trade data: Examples from the hardwood trade statistics. *Forest Science*. 41(2): 278-283.

\*U.S. GPO: 2002-750-245/20034







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